



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application: TRACK LIGHTING SYSTEM FOR 277 VOLT POWER LINE
Applicant: Ole K. Nilssen
Serial Number: 07/511,951
Filing Date: 04/16/90

Art Unit: 252
Examiner: ZARABIAN, A.

Applicant's Phone Number: 708-658-5615

APPEAL BRIEF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Pursuant to NOTICE OF APPEAL, Applicant herewith provides
an Appeal Brief.

A check (#3697) for \$120.00 is enclosed herewith.

Status of Claims

The pending claims are 1 through 19.

Claims 1-19 are rejected under 35 USC 103 as being
unpatentable over Spira in view of Kivari and Neumann.

Claims 1-19 are rejected under 35 USC 103 as being
unpatentable over Nilssen in view of Kivari and Neumann.

All Examiner's rejections are being appealed.

A copy of claims 1-19 is attached hereto by way of an
Appendix entitled CLAIMS on Appeal in Serial No. 07/511,951.

Status of Amendments

There has been no amendment filed after final office action.

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Brief
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I, OLE K. NILSEN, HEREWITH
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Summary of Invention

With particular reference to Fig. 4, the invention is concisely described by claim 1, as follows.

1. A track lighting system comprising:

a source providing a relatively high-magnitude low-frequency AC voltage to a pair of power line terminals (PLC -- see 6th paragraph at page 4 of the specification);

voltage conditioning means connected with the power line terminals (SEVC -- 6th paragraph at page 4) and operative to provide a relatively low-magnitude high-frequency AC voltage at a pair of track conductors in a power track (CAS -- 6th paragraph at page 4), the power track having a receptacle slot (STRS -- 6th paragraph at page 4) operable to receive and hold track lighting units having socket terminals (e.g., STLUL -- 6th paragraph at page 4), thereby to permit electrical contact between the socket terminals and the track conductors; and

track lighting units: i) having socket terminals, ii) adapted by way of these socket terminals to be inserted into and held by the power track's receptacle slot, thereby to establish electrical contact between the socket terminals and the track conductors, and iii) adapted to be properly powered by the relatively low-magnitude high-frequency AC voltage.

Issues

A single issue is presented for review:

(1) In view of the Affidavits submitted by Applicant in his FILE WRAPPER CONTINUATION, the appropriateness of Examiner's continued rejection of claims 1-19 under USC 103 as being unpatentable over ^{Novel} Spira and Neumann as well as over Nilssen, Kivari and Neumann.

Grouping of Claims

The claims at issue are grouped as follows:

Group 1: Claims 1-19, which were rejected under USC 103 as being unpatentable over Spira in view of Neumann; and

Group 2: Claims 1-19, which were rejected under 35 USC 103 as being unpatentable over Nilssen in view of Kivari and Neumann.

The claims do not "stand or fall" together. Some of the claims are argued as being separately patentable.

ARGUMENTS

Re Group 1 Claims

Examiner rejected claims 1-19 under USC 103 as being unpatentable over Spira in view of Neumann.

Applicant traverses these rejections for the following reasons.

(a) With reference to Exhibits E and F, of record, each of two experts in the particular art pertinent hereto, Messrs. Giorgis and Schneider, each being expressly familiar with the teachings of Neumann, was asked to carefully study and consider the teachings of Spira and to identify each and every instance of what he saw as a desirable obvious modification and/or application of Spira's teachings.

Neither of the two experts identified the claimed invention as being among such obvious modifications and/or applications.

Thus, twice over, Applicant has provided sworn-to testimony by a skilled person (i.e., possessing at least ordinary skill in the pertinent art) to the effect that -- in light of the teachings of Neumann -- the claimed invention does not constitute an obvious modification and/or application of Spira's teachings.

Hence, as a matter of plain fact, Applicant has provided evidence to the effect that his claimed invention is unobvious and therefore patentable.

Now, undoubtedly, the Board will counter by saying that these persons evaluated Spira's teachings in a vacuum -- without guidance, without the benefit of knowing what to look for. And -- just as in real life situations -- that is indeed true. The question is: what sort of guidance should be provided to the affiants? --- Who should provide such guidance?

Clearly, it would have been grossly unfair to first expose the affiants to a description of the claimed invention and thereafter ask them to analyze Spira in light of Neumann to see if in hindsight they would find the claimed invention to be obvious. To follow such a procedure would be equivalent to using the claimed invention as a guide to interpret the prior teachings.

That is, if prior teachings lack the ingredients necessary to provide the totality of motivation and guidance necessary to lead a PHOSITA to seek to attain the claimed invention, then it is rather obvious that these prior teachings do not provide everything that it takes to render the claimed invention obvious.

(b) In anticipation of possible rejection by the Board of the arguments of section (a) above, Applicant also refers to Exhibit D; which Exhibit D represents an affidavit by another expert, Mr. Fiene.

Unlike the case with Messrs. Georgis and Schneider, Mr. Fiene did read Applicant's claims prior to analyzing the applied references.

Mr. Fiene's testimony speaks for itself, providing clear and plain evidence to the effect that Applicant's claimed invention is unobvious over the combination of Spira and Neumann.

For instance, starting at the very top of page 4 of his affidavit, Mr. Fiene states that:

"In my opinion, it would be highly unusual, as well as inappropriate, to distribute the high-frequency voltage in Spira's gas discharge lighting system by way of power tracks such as those described by Neumann.";

whereafter Mr. Fiene proceeds to explain the facts and considerations underlying his opinion.

Re Group 2 Claims

Examiner rejected claims 1-19 under 35 USC 103 as being unpatentable over Nilssen in view of Kivari and Neumann.

Applicant traverses these rejections for the following reasons.

(c) As amply testified-to by Mr. Fiene, the Kivari reference is defective for failure to provide enablement.

That is, the lamp described by Kivari represents nothing more than a simplistic half-baked idea, utterly incapable of being implemented in the world of reality.

For instance, Kivari's incandescing means -- by virtue of its indicated physical dimensions -- would require far in excess of 100 Watt to incandesce to a useful color temperature; yet, his transformer 19 -- by virtue of the indicated physical dimensions (even if stretched) -- could not possibly deliver more than a fraction of one Watt.

(d) Even if assuming Kivari's lamp to be operable as represented by Kivari, to modify Nilssen on basis of the teachings of Kivari and Neumann would still be unobvious for the basic reason that the references do not provide any motivation for a PHOSITA to seek to do such modification.

Although it is clear that Nilssen's power supply could be used to power Neumann's track lighting system, there is no hint whatsoever to the effect that doing so would yield any sort of benefit. Quite the contrary: to power Neumann's power track with Nilssen's power supply would not yield any discernable benefits, yet -- compared with powering the track directly from the power line -- would introduce substantial added costs, complexities, power losses, failure risks, etc. Thus, no skilled artisan in his right mind would even consider doing so.

CONCLUDING REMARKS

Examiner, with reference to Mr. Fiene's affidavit, states that:

"this affidavit is insufficient since the opinions set forth are not persuasive. With respect to the opinions on obviousness, the affiant ... is not qualified as a registered attorney so his opinion with respect to legal issues such as obviousness is disregarded".

Clearly, Examiner -- who must be presumed to lack any skill in the particular art pertinent hereto -- values his own opinions with regard to facts and circumstances related to the claimed invention and the applied references over those of an expert, such as Mr. Fiene.

Applicant rejects the rationale implicitly underlying Examiner's position. Clearly, Examiner should subjugate his own opinions to those of an expert, to the extent such opinions relate to subject matter requiring for proper understanding a skill level different from that possessed by Examiner.

With respect to Examiner's position relative to the irrelevance of Mr. Fiene's opinion "with respect to legal issues such as obviousness", Applicant is utterly dismayed.

Does Examiner really mean to say that 35 USC 103 relates to that which would have been obvious in the eyes of a "registered attorney"? --- And here Applicant had naively believed that 35 USC 103 related to that which would have been obvious in the eyes of a "person having ordinary skill in the art".

So, to prevent Applicant from continuing to operate on the possibly false assumption that the opinion of an expert does matter with respect to the obviousness or non-obviousness of some given modification of prior art within his domain of expertise, Applicant requests of the Board to express its opinion on this subject.



Ole K. Nilssen. Pro Se Applicant

CLAIMS on Appeal in Serial No. 06/889,746

1. A track lighting system comprising:

a source providing a relatively high-magnitude low-frequency AC voltage to a pair of power line terminals;

voltage conditioning means connected with the power line terminals and operative to provide a relatively low-magnitude high-frequency AC voltage at a pair of track conductors in a power track, the power track having a receptacle slot operable to receive and hold track lighting units having socket terminals, thereby to permit electrical contact between the socket terminals and the track conductors; and

track lighting units: i) having socket terminals, ii) adapted by way of these socket terminals to be inserted into and held by the power track's receptacle slot, thereby to establish electrical contact between the socket terminals and the track conductors, and iii) adapted to be properly powered by the relatively low-magnitude high-frequency AC voltage.

2. The track lighting system of claim 1 wherein the voltage conditioning means comprises: i) full-bridge rectifier means connected with the power line terminals and operative to provide a DC supply voltage, and ii) half-bridge inverter means powered by this DC supply voltage and operative to provide the relatively low-magnitude high-frequency AC voltage at said pair of track conductors;

whereby the voltage conditioner is operative to convert the large-magnitude low-frequency AC voltage into the relatively low-magnitude high-frequency AC voltage without requiring the use of magnetic power transformer means.

3. The track lighting system of claim 1 wherein said voltage conditioning means comprises: i) rectifier means connected with the power line terminals and operative to provide a DC supply voltage, and ii) inverter means powered by this DC supply voltage and operative to provide at the pair of track conductors said relatively low-magnitude high-frequency AC voltage, this low-magnitude high-frequency voltage consisting of intermittent periodic bursts of relatively high-frequency AC voltage.

4. The track lighting system of claim 1 wherein: i) the high-magnitude low-frequency AC voltage has an RMS magnitude of about 277 Volt and a frequency of about 60 Hz, and ii) the low-magnitude high-frequency AC voltage has an RMS magnitude of about 120 Volt and a frequency on the order of 30 kHz.

5. The track lighting system of claim 1 wherein one of the track lighting units comprises: i) an incandescent lamp having lamp terminals, and ii) a high-frequency transformer connected in circuit between the socket terminals and the lamp terminals.

6. A track lighting system characterized by:

being powered from an ordinary electric utility power line having a relatively high-magnitude voltage;

comprising voltage conditioner means connected with the power line and operative to provide at a set of output terminals a relatively low-magnitude voltage, the low-magnitude voltage being of frequency substantially higher than that of the high-magnitude voltage;

a power track means having power track conductors and receptacle slot means, the power track conductors being connected with the output terminals and having receptacle slot means operable to receive and hold a number of track lighting units; and

a track lighting unit: i) having socket terminals, ii) being operable to be received and held by the receptacle slot, thereby providing for electrical connection between the socket terminals and the track conductors, and iii) being operable to be properly powered by the low-magnitude voltage on the track conductors.

7. The track lighting system of claim 6 wherein: i) the track lighting unit comprises an incandescent lamp having lamp terminals, and ii) transformer means connected in circuit between the lamp terminals and the socket terminals.

8. The track lighting system of claim 6 wherein: i) the relatively high-magnitude voltage has an RMS magnitude of about 277 Volt, and ii) the relatively low-magnitude voltage has an RMS magnitude of about 120 Volt.

9. The track lighting system of claim 6 wherein the frequency of the relatively low-magnitude voltage is on the order of 30 kHz.

10. The track lighting system of claim 6 wherein the voltage conditioner means is characterized by comprising: i) full-wave rectifier means connected with the power line terminals and providing DC voltage at a DC output, and ii) half-bridge inverter means connected with the DC output and operative to provide said relatively low-magnitude voltage at said output terminals.

11. A track lighting system characterized by:

being powered from an ordinary electric utility power line having a relatively low-frequency voltage;

having a voltage conditioner means connected with the power line and operative to provide a relatively high-frequency voltage at an output, the high-frequency voltage being of frequency substantially higher than that of the low-frequency voltage;

power track means having track conductors connected with the output, the power track means having receptacle slot means by which to provide access to the track conductors; and

a number of track lighting units, each: i) having socket terminals adapted to connect with the track conductors by way of the receptacle slot means, and ii) being operative to be properly powered by said high-frequency voltage.

12. The track lighting system of claim 11 wherein at least one of said track lighting units comprises an incandescent lamp designed for proper operation on a low-magnitude voltage of RMS magnitude substantially lower than that of said high-frequency voltage, the low-magnitude voltage being derived from the high-frequency voltage by way of high-frequency transformer means.

13. The track lighting system of claim 11 wherein the voltage conditioner is characterized by comprising full-bridge rectifier means and half-bridge inverter means.

14. The track lighting system of claim 11 wherein the voltage conditioner means constitutes an integral part of the power track means.

15. The track lighting system of claim 11 wherein: i) the power track means is embodied in a first elongated structure having a cross-section, and ii) the voltage conditioner means is comprised within a second elongated structure having a cross-section not substantially larger than that of the first elongated structure.

16. (Amended) The track lighting system [sustem] of claim 15 wherein: i) the first and the second elongated structures each has a longitudinal axis, and ii) the two structures are so mounted as to have their longitudinal axes substantially coincide.

17. A track lighting system comprising:

an electric power track means: i) connected with an ordinary electric utility power line, ii) having track conductors, iii) being operative to provide a high-frequency voltage at these track conductors, the frequency of this high-frequency voltage being substantially higher than that of the voltage normally present on the power line, and iv) having receptacle slot means operative to receive and hold track lighting means as well as to permit access to the track conductors; and

a number of track lighting means, each track lighting means: i) having socket terminals, ii) being adapted to be inserted and held by the receptacle slot means, iii) when so held, providing for electrical connection between its socket terminals and the track conductors, and iv) being operative to be properly powered by the high-frequency voltage on the track conductors.

18. The track lighting system of claim 17 wherein at least one of said track lighting means comprises an incandescent lamp designed for proper operation to be powered by a relatively low-magnitude voltage, this low-magnitude voltage: i) having RMS magnitude substantially lower than that of the high-frequency voltage, and ii) being obtained from the high-frequency voltage by way of high-frequency transformer means.

19. In a track lighting system connected with an ordinary electric utility power line and powered by the power line voltage thereon, the power line voltage having an RMS magnitude between about 210 Volt and about 280 Volt, the track lighting system having power track means with track conductors, the improvement comprising:

voltage conditioner means connected with the power line and operative to provide at the track conductors a voltage of RMS magnitude between about 105 Volt and about 140 Volt, thereby to permit the operation by direct connection with these track conductors of incandescent lamp means requiring for their proper operation to be powered by a voltage of RMS magnitude between about 105 Volt and about 140 Volt;

the voltage conditioner being characterized by being operative to perform the indicated voltage magnitude-reduction without having to use a power transformer therefor, yet drawing power from the power line with a power factor higher than 67%.

B. A. A.